

10324-193

10/29/2009

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

EPA Reg. Number:  
10324-193

Date of Issuance:  
OCT 29 2009

Term of Issuance:

**Conditional**

Name of Pesticide Product:

**Maquat LC12S-40% LF**

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Mason Chemical Company  
721 W. Algonquin Rd.  
Arlington Height, IL 60005

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec 3(c)(7)(C) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

- a. Revise the "EPA Registration Number to read, "EPA Reg. No. 10324-193

Signature of Approving Official:

*Velma Noble*  
Velma Noble  
Product Manager Team-31  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

Date:

OCT 29 2009

**Labeling:**

3) Revise the Environmental Hazards section on page 1 to be in agreement with the DDAC and ADBAC REDs by adding the following statement, "*This pesticide is toxic to fish and aquatic invertebrates.*"

4.) Revise "This product is toxic to fish on page 4 headings "Controlling Algal Growth" Instructions For Bird Baths" and Instruction for (Containerized) Decorative Fountains and Pools" by adding the following statement to read "*This pesticide is toxic to fish and aquatic invertebrates.*"

5.) Revise page 5 right column by deleting "Continuous Feed Method"

6.) Revise the "Storage and Disposal" statements on page 7 to be in compliance with PR Notice 2007-4 by doing the following:

a) Delete the first of "Storage and Disposal" Statements.

e) Revise the Residue Removal statements for refillable and non refillable containers to state the following:

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers less than 5 gallons)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container 1/4 full with water and recap. Shake 10 seconds. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times.

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers greater than 5 gallons)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container 1/4 full with water. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times.

Submit three (3) copies of your final printed labeling before distributing or selling the product bearing the revised labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Should you have any questions or comments concerning this letter, please contact Drusilla Copeland at (703) 308-6224 or Velma Noble at (703) 308-6233.

Sincerely,



Velma Noble  
Product Manager 31  
Regulatory Branch I  
Antimicrobials Division (7510P)

Enclosure: Stamped label



**MASON CHEMICAL COMPANY**

**"The Quaternary Specialists"**

721 W. Algonquin Road | Arlington Heights, IL 60005 | 847-290-1621 or 800-362-1855

E.P.A. Reg. No. 10324-XXX

E.P.A. Est. No. 10324-IL-1

**MAQUAT® LC12S-40% LF**

Net Contents:

Batch No:

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS  
AND DOMESTIC ANIMALS**

**DANGER. Keep Out of Reach of Children.** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Do not get into eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

*(If container is 5 gallons or larger the following statement must appear on the label)*

**ENVIRONMENTAL HAZARD**

This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

*(If container is less than 5 gallons use the following environmental hazard)*

**ENVIRONMENTAL HAZARD**

This product is toxic to fish.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame or in car.  
Do not mix with oxidizers, anionic soaps and detergents.

**First Aid**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

For Control of Algae and Algal Slime Growth in Swimming Pools, (Outside) Spas/Whirlpools/Hot Tub Baths, (Containerized) Decorative Fountains and Pools and bird baths. ("Containerized", "Outside" description and the use site "Retort Water Systems" not for use in California.)

For Control of Algae and Algae Slime Growth in Industrial and/or Commercial Recirculating Cooling Water Towers, Retort Water Systems, Once Through Water Cooling Systems,

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

OCT 29 2009

Low foaming algaecide

**ACTIVE INGREDIENTS:**

n-Alkyl (67%C<sub>12</sub>, 25%C<sub>14</sub>, 7%C<sub>16</sub>, 1%C<sub>18</sub>)  
dimethyl benzyl ammonium chloride

INERT INGREDIENTS: ..... 60.0%

TOTAL: ..... 100.0%

Weight: Approx. 8 lbs./gallon

**KEEP OUT OF REACH OF CHILDREN**

**DANGER PELIGRO**

See left (back) (side) (right) panel (of label) (below) for additional precautionary statements and first aid statements.

*(Note to Reviewer: This information has been verified per DOT regulations. It is NOT required to be on the label but is being requested by a customer.)*

**TRANSPORTATION INFORMATION**

DOT Hazard Class: Non-Corrosive

DOT Proper Shipping Name: Not applicable

**PELIGRO: SI NO PUEDE LEER EN INGLES, PREGUNTE A SU SUPERVISOR SOBRE LAS INSTRUCCIONES DE USO APROPIADAS ANTES DE TRABAJAR CON ESTE PRODUCTO.**

Manufacturing and/or Lot no. Date:

40410

## MARKETING CLAIMS

This product is a non-metallic, low-foaming, low odor pool algaecide that kills most types and strains of algae and is not affected by pH levels.

Non-staining formula is great for all pool types and will not discolor hair.

A great value.

Premium quality, non-metallic, low-foaming, pH neutral algaecide and algaecide. It is very stable and highly effective for controlling a broad spectrum of algae and can be used all season as well as for winterizing.

Non-metallic, low-foaming algaecide for preventing and eliminating mustard, black and other algae species. It can be used all season and is excellent for winterizing.

This product is 40% active quat. It is highly effective for controlling slimy green algae. A great product when used for winterizing. It is non-metallic, long lasting, pH neutral and applied directly to the pool.

Can be used in conjunction with super chlorination.

Recommended for use with well water.

Kills all types of stubborn algae - including black, mustard, pink, and green. It is a low-foaming, non-staining formula which also significantly clarifies pool water.

This product will not stain surfaces or leave behind any residue.

Helps eliminate clogging of algae on the filter which can decrease filter effectiveness and require more backwashing or medium replacement.

Your pool will use less chlorine. Algae create a chlorine demand in the water for itself, actually consuming chlorine that must be working on other contaminants.

Will prevent the growth of most algae during the off season winter months when pool is not in use.

Is compatible with those chemicals normally used to treat pools and spas and is effective at both acid and alkaline pH.

Can be used in pools and spas treated with chlorine chemicals and may reduce the amount of these chemicals normally required.

40% Strength.

Effective winterizer.

Ideal for treating all types of algae.

Protects against algal growth.

Effective treatment against green, black and yellow algae.

Low-foaming formula.

No pH adjustment necessary before use.

Protects against green, black and yellow algae.

Prevents green, black, yellow algae.

Controls green, black and yellow algae.

Treats green, black and yellow algae.

Good for all pool surfaces.

This product when used regularly will kill and control the growth of (green) algae for complete pool enjoyment.

Chlorine Free.

This product is compatible with many (most) swimming pool chemicals when use as directed. It is not harmful to the metal, plastic, concrete, paint, plaster, or the tile surfaces of the swimming pool.

This product when used as directed will help improve the appearance and cleanliness of the swimming pool water.

This product helps to inhibit the growth of unsightly algae.

This product will not lose its effectiveness or strength on your shelf in storage (over winter).

Requires no special equipment for treating swimming pool water.

When this product is used as directed, it is effective against *Chlorella pyrenoidosa* (green Algae), *Phormidium luridum* (black algae), *Lyngbya versicolor* (blue-green algae) and other swimming pool algae and slime producing microorganisms.

This product is efficient and stable in use dilution.

This product keeps pool water free and sparkling clear of visible green and blue-green algae, slime and green brown colors.

This product improves filter operation and reduces need for other chemicals.

This product imparts tone and a pleasant "feel" to swimming pool water.

This product is formulated to complement swimming pool water being treated with normal chlorine systems. It is especially effective against growth of algae and being non-volatile, aids in maintaining pool water clarity and sparkle. The residual effectiveness of this algaecide tends to stabilize the total chemical treatment system.

This product is compatible with most chemicals normally used in swimming pool maintenance. However, in its concentrated form, this chemical must not come in contact with high concentrations of chlorine or any other oxidizer. **DO NOT MIX THIS PRODUCT AND CHLORINE OR ANY OTHER OXIDIZER TOGETHER** before adding to the pool. These chemicals must be handled separately.

This product was formulated to complement most swimming pool sanitizers. This product is not a stand-alone product. It must be used with either halogen based or non-halogen based pool sanitizers. This product supports your overall pool chemical maintenance program, offering a residual effectiveness that protects your pool against algal formation while keeping your pool water sparkling clear. This product protects the unattended pool when you're away (refer to Vacation Treatment section under Directions For Use).

## WATER TREATMENT DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Please read entire label and use strictly in accordance with precautionary statements and directions.

## SWIMMING POOLS

This product requires no special equipment for treating swimming pool water. The correct use dilution may be added directly to the pool in any spot or added to the water circulation equipment. This product works best when added by itself directly to pool water.

50110

## INSTRUCTIONS FOR USE WITH HALOGEN BASED POOL SANITIZERS

This product is formulated to complement most swimming pool sanitizers. When using other products as outlined in Directions For Use on those products, always follow Directions For Use of those products. This product is effective against the growth of algae. This product is efficient and non-staining when used as directed. This product will not evaporate and its algal fighting abilities actually increase as pool water temperature increases.

Ensure all pool equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH between 7.2-7.6. Adjust chlorine residual to 1-3 ppm. In a chlorine treated pool, add stabilizer to establish a minimum level of 40-50 ppm to reduce the degradable effects of sunlight upon the chlorine residual. Check for metals and if present add stain and scale inhibitor to prevent staining of pool surface due to metals. Check chlorine residual and adjust to 1-3 ppm.

Add this product directly into pool by pouring around entire outside perimeter of pool. Allow the filter to run for at least six (6) hours after adding algacide. During this period, swimmers must not be allowed into the water.

1. **Dosages** – For pools, which are, free of algae or contain algae growth.

**Initial Application:** Backwash the filter thoroughly. Vacuum algae debris (to waste) and thoroughly brush pool. For an initial application, pour directly into pool at a rate of 19.2 ounces of this product per 15,000 gallons of water (2 ppm). More rapid distribution will be achieved by pouring a portion of the specified amount into several areas of the pool until all of the required quantity has been added. Vacuum pool after 24 hours to remove dead algae. If algae is still visible repeat dose as necessary until pool is free of visible algae. Once algae are under control, clean filter and return to normal operation. Recirculation accomplished by running the filter will assure rapid dispersion of product. *(Note to reviewer: The term "to waste" is not for use in California.)*

**Maintenance:** Pour directly into pool at a rate of 1 quart per 100,000 gallons of water (0.5 ppm) every 5-7 days depending on weather and use factors. After each rain of consequence, add 1 quart per 100,000 gallons water. Even when the pool may not be in use for periods of time, algacide additions must be made since a heavy accumulation of algae growth is difficult to remove. The appropriate amount of this product must be added by pouring a portion of the specified amount into several areas of the pool until the required quantity has been added. Recirculation accomplished by running the filter will assure rapid dispersion of product.

2. **Reentry interval:** swimmers are allowed to re-enter the pool 15 minutes after application of the product.
3. Ensure that water quality conditions are maintained for the successful use of the product.

OR

**INITIAL APPLICATION** *(Note to reviewer: The term "to waste" is not for use in California.)*

1. Backwash the filter thoroughly.
2. Vacuum algae debris (to waste) and thoroughly brush pool.
3. Add 32 ounces of this product to each 50,000 gallons of water (6.4 ounces per 10,000 gallons) (one 3.2 fluid ounce packet per 5,000 gallons of pool water) or ratio thereof.
4. Vacuum pool after 24 hours to remove dead algae.
5. If algae are still visible repeat dose (steps 3 & 4) as necessary until pool is free of visible algae.
6. Once algae are under control, clean filter and return to normal operation.

## MAINTENANCE APPLICATION

Add 8 ounces of this product in 50,000 gallons of water (one 3.2 fluid ounce packet per 20,000 gallons of pool water) every 3-5 days or as needed to maintain 0.5 ppm active.

## BOOSTER APPLICATION

Add 8 ounces of this product in 50,000 gallons of water (one 3.2 fluid ounce packet per 20,000 gallons of pool water) after a heavy or prolonged rainfall or when there is a heavy bathing load.

The above directions must be followed even when the pool is not in use.

If algal growth is noticeable, apply initial dose.

## VACATION TREATMENT

When you are going to be away for one week or more add 6.4 ounces of this product per 10,000 gallons of water (one 3.2 fluid ounce packet per 5,000 gallons of pool water) for every week unattended. Pour product around the edges of the shallow end of the pool if shock is also being applied in the deep end of pool.

## OPTIONAL INSTRUCTIONS FOR USE WITH NON-HALOGEN BASED F SANITIZERS

This product is formulated to complement swimming pool water being treated with the BioGuard Softswim System, Baquacil and other non-halogen systems. When using other products as outlined in Directions For Use for this product, always follow Directions For Use of those products. This product is efficient and non-staining when used as directed. This product will not evaporate and its algal fighting abilities actually increase as the pool water temperature increases. The residual effectiveness of this product tends to stabilize the total chemical treatment system.

Ensure all pool equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH between 7.2-7.6. Check for metals and if present add stain and scale inhibitor to prevent staining of pool surface due to metals.

Add this product directly into pool by pouring around entire outside perimeter of pool. Allow the filter to run for at least six (6) hours after adding algacide. During this period, swimmers must not be allowed into the water.

**INITIAL APPLICATION** *(Note to reviewer: The term "to waste" is not for use in California.)*

1. Backwash the filter thoroughly.
2. Vacuum algal debris (to waste) and thoroughly brush pool.
3. Add 32 ounces of this product to each 50,000 gallons of water (6.4 ounces per 10,000 gallons) (one 3.2 fluid ounce packet per 5,000 gallons of pool water) or ratio thereof.
4. Vacuum pool after 24 hours to remove dead algae.
5. If algae are still visible repeat dose (steps 3 & 4) as necessary until pool is free of visible algae.
6. Once algae are under control, clean filter and return to normal operation.

## MAINTENANCE APPLICATION

Add 8 ounces of this product in 50,000 gallons of water (one 3.2 fluid ounce packet per 20,000 gallons of pool water) every 3-5 days or as needed to maintain 0.5 ppm active.

## BOOSTER APPLICATION

Add 8 ounces of this product in 50,000 gallons of water (one 3.2 fluid ounce packet per 20,000 gallons of pool water) after a heavy or prolonged rainfall or when there is a heavy bathing load.

The above directions must be followed even when the pool is not in use.

If algal growth is noticeable, apply initial dose.

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### VACATION TREATMENT

When you are going to be away for one week or more add 6.4 ounces of this product per 10,000 gallons of water (one 3.2 fluid ounce packet per 5,000 gallons of pool water) for every week unattended. Pour product around the edges of the shallow end of the pool if shock is also being applied in the deep end of pool.

### WINTERIZING TREATMENT *(Not for use in California)*

When swimming pool season is over, add 32 ounces of this product per 16,000 gallons (2 ounces per 1,000 gallons) (or ratio thereof) of water left in pool. This dose helps provide a measure of control of algal growth during the winter months. This treatment will also help the servicing of the pool before it is returned to use the following season.

For persistent algae or slime producing organisms, add 8 ounces of this product into the skimmer with the filter pump running. After one minute shut off pump and allow the system to remain off overnight. The following day, restart the filter pump and add 8 ounces of this product to the pool. Run filter continuously for 24-48 hours brushing the sides and bottom of the pool frequently.

*(Usage chart for one-gallon containers)*

Swimming Pool Capacity Gallon of Water	Initial Treatment	Maintenance Dose Booster Dose
5,000	3.2 ounces	0.8 ounces
10,000	6.4 ounces	1.6 ounces
20,000	12.8 ounces	3.2 ounces
25,000	16.0 ounces	4.0 ounces
30,000	19.2 ounces	4.8 ounces
40,000	25.6 ounces	6.4 ounces
50,000	32.0 ounces	8.0 ounces

OR

*(Usage chart for one-quart containers)*

Swimming Pool Capacity Gallon of Water	Initial Treatment	Maintenance Dose Booster Dose
5,000	3.2 ounces	0.8 ounces
10,000	6.4 ounces	1.6 ounces

OR

### WINTERIZATION METHOD *(not for use in California)*

This product may be used with the following pool chemicals to form a winterization "package".

#### Directions:

1. Add a maintenance dose of chloride or oxygen shock.
2. Top up BioGuard Softswim System, Baquacil or other non-halogen systems to 50 ppm.
3. Add 20 ounces of this product per 10,000 gallons (8 ounces per 4,000) (or ratio thereof) of water left in pool. This dose helps provide a measure of control of algal growth during the winter months. This treatment will also help the servicing of the pool before it is returned to use the following season.
4. Allow filter to run for several hours after chemical additions for good mixing.

**Note:** Before using chlorine or oxygen shock, read the Directions for Use and Precautionary Statements specific to that product.

### TO DETERMINE POOL CAPACITY

**Rectangular Pools:** Length (*times*) width (*times*) average depth (in feet) (*times*) 7.5 (*equals*) gallons.

**Round and Oval Pools:** Long diameter (*times*) short diameter (*times*) average depth (in feet) (*times*) 5.9 (*equals*) gallons

### OTHER

#### DIRECTIONS FOR USE IN (OUTSIDE) SPAS/WHIRLPOOLS/HOT TUBS

*("Outside" description not for use in California)*

**Initial Dose:** Add 3.2 ounces of this product per 5,000 gallons of water. Initial dose is used upon filling of outside spa/whirlpool/hot tub bath.

**Maintenance Dose:** Add 0.8 ounces of this product per 5,000 gallons of water. Maintenance dose must be added at 3-5 day intervals. If high temperatures prevail or outside spa/whirlpool/hot tub bath has unusually heavy use, add maintenance dose more frequently. Drain and clean outside spa/whirlpool/hot tub bath at least once a month or as needed depending upon bather load.

#### CONTROLLING ALGAL GROWTH

**BIRD BATHS:** Do not use with fish. This product is toxic to fish. Do not use this product when fish are present. Clean to remove algae growth prior to filling birdbath. Then spray all exposed surfaces with a solution of ¼ ounce of this product per gallon of water. Allow to air dry and brush off dead algae.

*(Or)*

#### INSTRUCTIONS FOR BIRD BATHS

This product is toxic to fish. **DO NOT** use this product when fish are present.

#### Initial Dose:

1. Drain Bird Bath.
2. Wipe, mop or spray all exposed surfaces using ¼ ounce of this product per gallon of water. Spray device must be a mechanical coarse spray device. When applied with spray device, surfaces must be sprayed until thoroughly wetted. Do not rinse.
3. Allow to air dry and brush off dead algae. Repeat, if necessary, until no algae are visible.
4. Refill Bird Bath with fresh water.

**Maintenance Dose:** Repeat initial treatment when algal growth returns.

**ALGAL CONTROL ON WALKWAYS:** For heavy infestations, spray or swab a solution of 1/4 ounce of this product per gallon of water. Let stand for an hour or more, then brush and wash away dead algae. Soak area again with the solution. Do not rinse. Allow to air dry on the surface and repeat application when algal growth returns.

#### INSTRUCTIONS FOR (CONTAINERIZED) DECORATIVE FOUNTAINS AND POOLS

*(Note to Reviewer: "Containerized" description must be used in California.)*

This product is toxic to fish. **DO NOT** use this product when fish are present.

#### Initial Dose:

1. Remove floating algae by raking, dragging with cable or chain or any other suitable method. It is more economical to remove floating type algae (if possible) before the water is treated.
2. Add this product at any point that is convenient, such as the bowl, pool, or sump.
3. Add 32 ounces of this product to each 50,000 gallons (8 ounces per 12,500 gallons) or ratio thereof.

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**Weekly Maintenance Dose:** Add 8 ounces of this product to each 50,000 gallons of water every 3-5 days or as to maintain 0.5 ppm active.

Each month drain and clean bowl. Refill with fresh water and repeat initial treatment. Draining removes airborne dirt, dust, contamination and alkali buildup.

Decorative Fountains or Pools Capacity in gallons of water	Initial Treatment	Maintenance Dose Booster Dose
50,000	32 ounces	8 ounces
25,000	16 ounces	4 ounces
12,500	8 ounces	2 ounces
6,250	4 ounces	1 ounces
3,125	2 ounces	½ ounce, (1 Tablespoon)
1,562	1 ounces	¼ ounce
781	0.5 ounces	0.125 ounces
390	¼ ounce	.0625 ounces
195	0.125 ounces	0.03125 ounces

### INDUSTRIAL WATER TREATMENT

Do not use water containing residues from use of this product to irrigate crops for food or feed.

Use of the product in either public/municipal or single or multiple family private/residential potable/drinking water systems is strictly prohibited. Use of the product in any cooling water system that discharges effluent within ¼ mile of either a public/municipal or single or multiple family private/residential potable/drinking water intake is strictly prohibited.

This product aids in the control of bacterial, fungal and algal slimes in evaporative condensers, heat exchange water systems, industrial and commercial cooling towers, influent systems such as flow through filters and lagoons, industrial water scrubbing systems and brewery pasteurizers.

### INDUSTRIAL (AND/OR COMMERCIAL) RECIRCULATING COOLING WATER TOWERS AND RETORT WATER SYSTEMS

(Note: Retort Water Systems use site not applicable in California.)

- Dosing Location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as at the sump.
- Dosing Conditions:** This product must be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.
- Method Of Application:**

#### a. INTERMITTENT OR SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, apply 6.4 to 12.8 fluid ounces (20 to 40 ppm on an active quaternary basis) per 1000 gallons of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 1.6 to 4.8 fluid ounces (5 to 15 ppm on an active quaternary basis) per 1000 gallons of water in the system twice weekly or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

#### b. MODIFIED INTERMITTENT METHOD

**Initial Dose:** When the system is noticeable fouled, apply 6.4 to 12.8 fluid ounces (20 to 40 ppm on an active quaternary basis) per 1000 gallons of water in the system. Apply half of this initial dose when half of the water in the system has been lost by blowdown.

**Subsequent Dose:** When control of microbial growth is evident, apply 1.6 to 4.8 fluid ounces (5 to 15 ppm on an active quaternary basis) per 1000 gallons of water in the system. Apply half of this subsequent dose when half of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### c. CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 6.4 fluid ounces (20 ppm on an active quaternary basis) per 1000 gallons of water in the system.

**Subsequent Dose:** Maintain this treatment by starting a continuous feed of 1.6 fluid ounces (5 ppm on an active quaternary basis) per 1000 gallons of water lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

### ONCE THROUGH (FRESH AND SEA) WATER COOLING SYSTEMS

- Dosing Location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as at the sump.
- Dosing Conditions:** This product must be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.
- Method Of Applications:**

#### a. INTERMITTENT OR SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, apply 0.32 to 3.2 fluid ounces (1 to 10 ppm on an active quaternary basis) per 1000 gallons of water based on system flow rates. The minimum treatment must be 6 to 24 hours. Repeat until control is achieved. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm clay to 1 ppm product.

**Subsequent Dose:** When microbial control is evident, add 0.16 to 1.6 fluid ounces (.5 to 5 ppm on an active quaternary basis) per 1000 gallons of water based upon system flow rates on a as needed basis to maintain control. Frequency of feed must be tied to an in plant monitoring program for fouling growth. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm clay to 1 ppm product.

#### b. CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 0.16 to 1.6 fluid ounces (0.5 to 5 ppm on an active quaternary basis) per 1000 gallons of water based on system flow rates. Continue to feed until needed control is achieved. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm to 1 ppm product.

**Subsequent Dose:** Maintain this treatment by starting a continuous feed of .064 to 0.64 fluid ounces (0.2 to 2 ppm on an active quaternary basis) per 1000 gallons of water based upon system flow rates. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm to 1 ppm product.

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**TO DEACTIVATE:** Use bentonite clay at the minimum ratio of 6 ppm clay to 1 ppm product. Deactivation must occur prior to discharge of the NPDES outfall. Do not apply this product more than 4 times a year.

#### **AUXILIARY SERVICE WATER AND WASTE WATER SYSTEM**

This product is effective for the control of odor-forming and slime-forming bacterial, fungi and algae in auxiliary service water systems such as fire protection systems and pump or screen bays, water waste systems such as storage tanks, storage piles, associated piping, settling ponds or lagoons, transport spillways or canals and disposed wells.

This product may be added to the system by slug or intermittent feed or by spraying onto a waste pile. The frequency of feed or spray and the duration of treatment will depend upon the severity of the contamination. Additions to water systems must be made during the pumping operation and as close to the pump as possible to ensure adequate mixing.

#### **INTERMITTENT OR SLUG METHOD**

When this treatment is required, add this product at the rate of 6.4 to 12.8 ounces per 1000 gallons of water already in the system, or being added to the system, for 4 to 8 hours, 1 to 4 times per week or as needed to achieve the desired level of control. When control is obtained, add this product at the rate of 1.6 to 4.8 ounces per 1000 gallons of water in the system.

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*(If the container is greater than one gallon use the following storage and disposal statements)*

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. Do not reuse empty container. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL (Larger than 1 gal.):** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. In addition, plastic containers may be disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

*(If container is one gallon or less use the following storage and disposal statements)*

## STORAGE AND DISPOSAL

Store in original container in areas inaccessible to small children. Do not store on side. Avoid creasing or impacting of side walls. Do not reuse empty container. Wrap and discard in trash (or recycle).

*(Note to Reviewer: The following statements should be considered as alternate statements at this time. However, they will be required on the label after 8/16/10 per the Container Standard Regulations. We are including the statements for review at this time because our customers are inquiring whether they can make these statements on their labels now.)*

*(OR)*

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

*(FOR USE ON NON-REFILLABLE CONTAINERS WITH NO HOUSEHOLD/RESIDENTIAL USES)*

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:** Non-refillable container. Do not reuse this container to hold materials other than pesticides or diluted pesticides (rinsate). Triple rinse (or equivalent). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling for available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers less than one gallon)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**RESIDUE REMOVAL INSTRUCTIONS:** *(For containers greater than one gallon)*

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least

one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**BATCH CODE:** *(Can be placed on container or label)*

*(FOR USE ON REFILLABLE CONTAINERS)*

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

**CONTAINER HANDLING:** Triple rinse (or equivalent). Refill this container with this product only. Do not reuse this container for any other purpose.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**RESIDUE REMOVAL INSTRUCTIONS:** Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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